



Attorney's Docket No. 034691/273971

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re: Kleine et al.
Appl. No.: 10/803,298 Confirmation No.: 5716
Filed: March 18, 2004 Group Art Unit: 2858
For: CIRCUIT AND METHOD FOR MEASURING DISTANCES

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

**SUBMITTAL OF TRANSLATION OF INTERNATIONAL
PRELIMINARY EXAMINATION REPORT**

Sir:

For the information of the Examiner, enclosed is a copy of the English translation of the International Preliminary Examination Report as prepared by the International Bureau.

Respectfully submitted,

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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450, on August 4, 2005.

Joyce D. Smith

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PCT/DE2002/003507

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 4401/I/026	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/DE2002/003507	International filing date (day/month/year) 19 September 2002 (19.09.2002)	Priority date (day/month/year) 19 September 2001 (19.09.2001)
International Patent Classification (IPC) or national classification and IPC G01D 5/20, 3/028		
Applicant MICRO-EPSILON MESSTECHNIK GMBH & CO. KG		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 5 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 1 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 04 April 2003 (04.04.2003)	Date of completion of this report 12 March 2004 (12.03.2004)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

Form PCT/IPEA/409 (cover sheet) (July 1998)

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/DE2002/003507

I. Basis of the report

1. With regard to the elements of the international application:*

- ☐ the international application as originally filed
- ☒ the description:
 pages 1-14, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☒ the claims:
 pages 2-24, as originally filed
 pages _____, as amended (together with any statement under Article 19
 pages _____, filed with the demand
 pages 1, filed with the letter of 21 November 2003 (21.11.2003)
- ☒ the drawings:
 pages 1/10-10/10, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
 pages _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under Item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/DE2002/003507

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. Statement**

Novelty (N)	Claims	YES
	Claims	NO
Inventive step (IS)	Claims	YES
	Claims	NO
Industrial applicability (IA)	Claims	YES
	Claims	NO

2. Citations and explanations

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/DE 02/03507

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-23	YES
	Claims	24	NO
Inventive step (IS)	Claims	1-23	YES
	Claims	24	NO
Industrial applicability (IA)	Claims	1-24	YES
	Claims		NO

2. Citations and explanations

1. Reference is made to the following document:

D1: US-A-5 589 778 (ONO YUKIO ET AL), 31 December 1996
(1996-12-31).

2. NOVELTY

2.1 D1 discloses a distance measuring circuit (column 1, lines 10-25), comprising (see figure 1 and the corresponding description):

- at least two inputs (nodes N11, N13),
- at least one measuring coil (variable sensor 6), and
- at least one signal source (OSC 1, AGC 2, buffer 3, inverter 4),
- it being possible to generate at least two input signals (S3 and S4) by means of the signal source,
- it being possible to control the inputs by means of the input signals (N11-S3; N13-S4),

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/DE 02/03507

- the input signals being applied to the measuring coil inputs (S3 to node 12 via reference sensor 5; S4 to node 13) and
- being used to generate a measuring signal and/or an output signal that is dependent upon the temperature influence (column 6, lines 39-43),
- the input signals being applied to at least one clocked SC network (peak detector circuits 12 and 13).

2.2 The subject matter of claim 1 differs from D1 by virtue of the following feature:

- the SC network has at least three SC units, two SC units being provided to process the input signals differently and one SC unit being provided to combine the SC unit outputs by addition, multiplication or other operations.

The subject matter of claim 1 is therefore novel and meets the requirements of PCT Article 33(2).

2.3 Claims 2-23 are dependent upon claim 1 and therefore likewise meet the requirements of PCT Article 33(2).

2.4 The subject matter of method claim 24 is disclosed in D1 (same observation as in point 2.1). The subject matter of claim 24 is not therefore novel and fails to meet the requirements of PCT Article 33(2).

3. INVENTIVE STEP

3.1 The problem addressed by the present invention can be considered to be that of designing a circuit so that it can be used even in the smallest amount of space

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/DE 02/03507

available.

3.2 A person skilled in the art is familiar with this problem and it is one that he continually seeks to solve during the course of his routine activity. Said problem cannot therefore contribute to an inventive step.

3.3 The solution given in claim 1 is not known or obvious from the prior art.

D1 discloses a distance measuring circuit that is provided with an SC network.

However, there is no suggestion to design the SC network in such a way that two SC units process the input signals differently and a third SC unit combines the outputs of the first two SC units.

Claim 1 therefore meets the requirements of PCT Article 33(3).

3.4 Claims 2-23 are dependent claims and therefore likewise meet the requirements of PCT Article 33(3).

4. INDUSTRIAL APPLICABILITY

Claims 1-24 meet the requirements of PCT Article 33(4).

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